

Notice of Allowability

Application No.

10/072,887

Examiner

Houshang Safaipoor

Applicant(s)

LEE, CHUN-HUNG

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to an amendment filed on 9/29/2006.
2. ☒ The allowed claim(s) is/are 1-20.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of issue fee.

Authorization to amend the claims was given in telephone interview with Michael Willardson (Reg. No. 50,856) on December 4, 2006.

2. The following listing of claims will replace all prior versions and listings:

1. (Currently Amended) A method, comprising:

obtaining a pre-scanned image from a scanner, the scanner having an illuminator to illuminate a document disposed on the scanner, wherein the pre-scanned image includes a document image portion, a background image portion, and an illuminator image portion comprising an image of at least a portion of the illuminator;

determining a preliminary range of the pre-scanned image;
distinguishing at least a portion of said document image portion and/or said background image portion from said illuminator image portion; and

determining a position of the document image portion within the range of the pre-scanned image.

2. (Previously Presented) The method of claim 1 wherein said determining said preliminary range comprises locating one side of said pre-scanned image, and searching along the one side to identify at least one corner of the pre-scanned image.

3. (Currently Amended) The method of claim 1 wherein said distinguishing comprises identifying color differences between said document image portion from said illuminator image portion.

4. (Previously Presented) The method of claim 1 wherein distinguishing comprises identifying one or more corners of the document image portion within the pre-scanned image.

5. (Previously Presented) The method of claim 4 wherein identifying one or more corners comprises identifying color differences between said document image portion and said background image portion at the one or more corners.

6. (Previously Presented) The method of claim 5 wherein Identifying four corners further comprises identifying a center point of said document image portion.

7. (Previously Presented) The method of claim 5, wherein the document image portion and a background image portion comprise different colors.

8. (Currently Amended) The method of claim 7, further comprising distinguishing at least a portion of said document image portion from said background image portion.

9. (Previously Presented) The method of claim 1, and further comprising determining the positional relationship between said document image portion and said background image portion within the range of the pre-scanned image.

10. (Currently Amended) An apparatus, comprising:

a scanner comprising:

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a scanner window adapted to have a document disposed thereon; and

a scanner cover having an illuminator, wherein said scanner cover is adapted to press on a document disposed on the scanner window, wherein said scanner is further adapted to:

obtain a pre-scanned image, the pre-scanned image comprising an image of at least a portion of the document, an image of at least a portion of the illuminator and an image of at least a portion of the scanner cover;

determine a preliminary range of the pre-scanned image;

distinguish at least a portion of the pre-scanned image comprising said image of at least a portion of the document from said image of at least a portion of the scanner cover and said image of at least a portion of the illuminator;

determine a position of the document portion within the preliminary range of the pre-scanned image.

11. (Currently Amended) The apparatus of claim 10, wherein the illuminator is adapted to illuminate at least a portion of a document disposed on the scanner window.

12. (Previously Presented) The apparatus of claim 10, wherein said determining a preliminary range comprises locating one side of said pre-scanned image, and searching along the one side to identify at least one corner of the pre-scanned image.

13. (Currently Amended) The apparatus of claim 10, wherein said scanner is further adapted to identify color differences between the document image portion, the illuminator image portion and scanner cover portion.

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14. (Previously Presented) The apparatus of claim 10, wherein said scanner is further adapted to identify one or more corners of the document image portion within the pre-scanned image.

15. (Currently Amended) The apparatus of claim 14, wherein said scanner is further adapted to identify color differences between the document image portion, the illuminator image portion and the scanner cover image portion at the one or more corners.


16. (Previously Presented) The apparatus of claim 10, wherein said scanner is further adapted to identify a center point of said document portion.

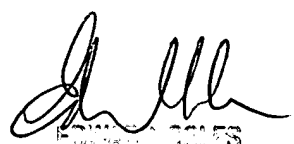
17. (Currently Amended) The apparatus of claim 10, wherein the document image portion, the illuminator image portion and the scanner cover image portion comprise different colors.

18. (Currently Amended) The apparatus of claim 11, wherein said illuminator image portion and said scanner cover image portion comprise different colors.

19. (Currently Amended) The apparatus of claim 18, and further comprising distinguishing at least a portion of said illuminator image portion and said scanner cover image portion.

20. (Currently Amended) The apparatus of claim 10, and further comprising determining a positional relationship between said document image portion, said scanner cover image portion and said illuminator image portion within the preliminary range of the pre-scanned image.

 Houshang Safaipoor


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SUPERVISORY PROJECT ENGINEER
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Reasons for Allowance

1. Claims 1-20 are allowed.
2. This is examiner's statement of reasons for allowance.

Regarding claims 1-20 the prior art either singularly or in combination does not teach a scanner comprising:

obtaining a pre-scanned image from a scanner, the scanner having an illuminator to illuminate a document disposed on the scanner, wherein the pre-scanned image includes a document Image portion, a background image portion, and an illuminator image portion comprising an image of at least a portion of the illuminator; determining a preliminary range of the pre-scanned image; distinguishing at least a portion of said document image portion and/or said background image portion from said illuminator image portion; and determining a position of the document image portion within the range of the pre-scanned image.

The features identified, in combination with other claim limitations, are neither suggested nor discussed by the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


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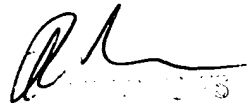
3. *Contact Information*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Houshang Safaipoor whose telephone number is (571)272-7412. The examiner can normally be reached on Mon.-Thurs. from 6:30am to 3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore whose telephone number is (571)272-7437. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 Houshang Safaipoor
Patent Examiner
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December 5, 2006


EXAMINER
DEC 5 2006